

Mineral Industry Surveys

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SULFUR IN JUNE 2005

During the month, production of recovered elemental sulfur was 734,000 metric tons, according to the U.S. Geological Survey. June production was 6% lower than that of May 2005 and 6% lower than that of June 2004. Shipments were 4% lower than those of May 2005. Producers' ending stocks for June 2005 were 172,000 tons.

Import and export data for June 2005 were not available at the time of publication and will be published in the Sulfur in July 2005 Mineral Industry Surveys along with apparent

consumption. Imports of recovered sulfur for May 2005 were estimated to be 221,000 tons; exports were 16,000 tons. Imports of sulfuric acid for May 2005 were 192,000 tons; exports were 26,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

 $\label{eq:table 1} \textbf{TABLE 1} \\ \textbf{SALIENT SULFUR STATISTICS}^1$

(Thousand metric tons)

| | | Production | | Shipments, | Ending |
|-------------------|------------------------|------------------|------------------|------------------|---------------------|
| Period | Petroleum ² | Natural gas | Total | all sources | stocks ³ |
| 2004: | | | | | |
| January-December | 7,390 | 1,990 | 9,380 | 9,410 | XX |
| January-June | 3,600 | 991 | 4,590 | 4,620 | XX |
| June | 618 | 164 | 781 | 780 | 192 |
| July | 650 | 173 | 823 | 813 | 202 |
| August | 652 | 172 | 824 | 838 | 189 |
| September | 599 | 155 | 754 | 757 | 186 |
| October | 598 | 163 | 761 | 765 | 183 |
| November | 622 | 167 | 789 | 771 | 200 |
| December | 664 | 167 | 831 | 846 | 185 |
| 2005: | | | | | |
| January | 571 | 169 | 740 | 740 | 179 |
| February | 547 | 156 | 703 | 696 | 188 |
| March | 585 | 169 | 754 | 755 | 184 |
| April | 598 | 157 | 755 ^r | 756 | 168 |
| May | 611 ^r | 166 ^r | 777 ^r | 764 ^r | 178 |
| June ^p | 615 | 118 | 734 | 731 | 172 |
| Total | 3,530 | 936 | 4,460 | 4,440 | XX |

^pPreliminary. ^rRevised. XX Not applicable.

 $\label{eq:table 2} \text{U.S. IMPORTS OF SULFUR}^1$

(Thousand metric tons and thousand dollars)

| | Canac | la | Mexi | со | Total, all co | untries ² |
|------------------|-----------------------|--------------------|----------|--------------------|-----------------------|----------------------|
| Period | Quantity ^e | Value ³ | Quantity | Value ³ | Quantity ^e | Value ³ |
| 2004: | | | | | | |
| January-December | 2,010 | 31,300 | 545 | 28,200 | 2,850 | 76,800 |
| January-May | 880 | 14,400 | 221 | 13,200 | 1,260 | 36,000 |
| May | 180 | 2,830 | 57 | 2,620 | 265 | 6,880 |
| June | 180 | 2,560 | 49 | 2,440 | 247 | 5,980 |
| July | 160 | 2,790 | 54 | 2,550 | 251 | 7,150 |
| August | 160 | 2,050 | 35 | 1,780 | 221 | 5,290 |
| September | 160 | 2,460 | 49 | 2,650 | 240 | 6,850 |
| October | 160 | 1,740 | 51 | 2,170 | 220 | 4,370 |
| November | 150 | 2,650 | 31 | 1,240 | 186 | 5,700 |
| December | 160 | 2,660 | 55 | 2,200 | 226 | 5,400 |
| 2005: | | | | | | |
| January | 150 | 2,070 | 31 | 1,070 | 224 | 4,730 |
| February | 130 | 2,130 | 50 | 1,930 | 230 | 6,080 |
| March | 140 | 2,320 | 40 | 1,640 | 180 | 4,050 |
| April | 140 | 2,530 | 47 | 1,840 | 224 | 5,830 |
| May | 140 | 1,890 | 40 | 1,570 | 221 | 5,140 |
| Total | 700 | 10,900 | 208 | 8,040 | 1,080 | 25,800 |

^eEstimated.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

TABLE 3 $\mbox{U.S. IMPORTS OF SULFURIC ACID}^1$

(Thousand metric tons and thousand dollars)

| | | Canada | | | Europe | | Tota | al, all countries | 2 |
|------------------|----------|------------------|--------------------|----------|-----------------|--------------------|----------|-------------------|--------------------|
| | | Sulfur | | | Sulfur | | | Sulfur | |
| Period | Quantity | content | Value ³ | Quantity | content | Value ³ | Quantity | content | Value ³ |
| 2004: | | | | | | | | | |
| January-December | 1,920 | 628 ^r | 72,500 | 206 | 67 ^r | 6,670 | 2,390 | 780 | 86,300 |
| January-May | 812 | 265 | 25,900 | 63 | 21 | 995 | 937 | 306 | 28,800 |
| May | 190 | 62 | 7,230 | 22 | 7 | 555 | 222 | 73 ^r | 8,120 |
| June | 166 | 54 | 6,350 | 11 | 4 ^r | 247 | 192 | 63 | 7,860 |
| July | 160 | 52 | 5,660 | 10 | 3 | 357 | 172 | 56 | 6,230 |
| August | 133 | 43 | 4,920 | 33 | 11 | 937 | 194 | 63 | 6,250 |
| September | 150 | 49 | 5,080 | 29 | 9 | 1,090 | 206 | 67 | 6,480 |
| October | 176 | 58 ^r | 6,450 | 19 | 6 | 946 | 215 | 70 | 7,480 |
| November | 160 | 52 | 5,930 | 11 | 4 ^r | 289 | 218 | 71 | 7,500 |
| December | 140 | 46 | 4,970 | 30 | 10 | 655 | 251 | 82 | 7,610 |
| 2005: | | | | | | | | | |
| January | 173 | 57 ^r | 5,990 | 30 | 10 | 840 | 248 | 81 | 9,490 |
| February | 174 | 57 | 6,190 | (4) | (4) | 18 | 213 | 70 | 7,820 |
| March | 183 | 60 | 7,080 | 32 | 10 | 759 | 254 | 83 | 8,590 |
| April | 191 | 63 | 7,770 | 10 | 3 | 629 | 250 | 82 | 9,660 |
| May | 158 | 52 | 6,370 | | | | 192 | 63 | 7,080 |
| Total | 879 | 287 | 33,400 | 72 | 24 | 2,250 | 1,160 | 378 | 42,600 |

Revised. -- Zero.

Source: U.S. Census Bureau.

 $\label{eq:table 4} \textbf{U.S. EXPORTS OF SULFUR AND SULFURIC ACID}^1$

(Thousand metric tons and thousand dollars)

| | | | | Sulfuric acid | |
|------------------|----------------|--------------------|----------|-----------------|--------------------|
| | Sulf | | | Sulfur | |
| Period | Quantity | Value ² | Quantity | content | Value ² |
| 2004: | | | | | |
| January-December | 949 | 63,300 | 204 | 67 ^r | 21,300 |
| January-May | 341 | 18,100 | 58 | 19 | 9,580 |
| May | 87 | 5,190 | 10 | 3 | 2,370 |
| June | 36 | 2,000 | 26 | 8 | 1,610 |
| July | | 1,720 | 13 | 4 | 1,280 |
| August | 157 | 11,500 | 40 | 13 | 3,210 |
| September | 107 | 6,590 | 11 | 4 | 1,090 |
| October | 127 | 7,250 | 23 | 8 | 1,850 |
| November | 31 | 2,280 | 20 | 7 | 1,590 |
| December | 130 | 8,740 | 13 | 4 | 1,120 |
| 2005: | | | | | |
| January | | 1,740 | 13 | 4 | 1,590 |
| February | 72 | 5,040 | 28 | 9 | 2,230 |
| March | 41 | 6,270 | 31 | 10 | 2,270 |
| April | 94 | 6,010 | 51 | 17 | 3,280 |
| May | 16 | 1,850 | 26 | 8 | 2,560 |
| Total | 245 | 20,900 | 149 | 49 | 11,900 |

Revised.

Source: U.S. Census Bureau.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

⁴Less than 1/2 unit.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

 $\label{eq:table 5} \text{U.S. CONSUMPTION OF SULFUR}^1$

(Thousand metric tons)

| Domestic | | | | | | | |
|------------------|----------------------|----------------------|------------------|--|--|--|--|
| Period | sources ² | Imports ^e | Consumption | | | | |
| 2004: | | | | | | | |
| January-December | 8,470 | 2,850 | 11,300 | | | | |
| January-May | 3,510 | 1,260 | 4,770 | | | | |
| May | 702 | 265 | 967 | | | | |
| June | 744 | 247 | 991 | | | | |
| July | | 251 | 1,050 | | | | |
| August | 681 | 221 | 902 | | | | |
| September | 650 | 240 | 890 | | | | |
| October | 638 | 220 | 858 | | | | |
| November | 740 | 186 | 926 | | | | |
| December | 716 | 226 | 942 | | | | |
| 2005: | | | | | | | |
| January | 718 | 224 | 942 | | | | |
| February | 624 | 230 | 854 | | | | |
| March | 715 | 180 | 895 | | | | |
| April | 662 ^r | 224 | 886 ^r | | | | |
| May | 748 | 221 | 969 | | | | |
| Total | 3,470 | 1,080 | 4,550 | | | | |

^eEstimated. ^rRevised.

TABLE 6 RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES, BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT $^{\rm l}$

(Thousand metric tons)

| District and source | June 2 | 2005 ^p | May 2 | 005 | January - J | une 2005 ² | January - Ju | ine 2004 ² |
|---------------------------|------------|-------------------|------------------|------------------|-------------|-----------------------|--------------------|-----------------------|
| | Production | Shipments | Production | Shipments | Production | Shipments | Production | Shipments |
| PAD 1: | | | | | | | | |
| Petroleum and coke | 18 | 19 | 14 | 14 | 114 | 115 | 118 ^r | 121 ^r |
| Natural gas | 2 | 2 | 8 | 8 | 17 | 17 | 11 | 11 |
| Total | 20 | 21 | 22 | 22 | 131 | 133 | 129 ^r | 131 ^r |
| PAD 2: | = | | | | | | | |
| Petroleum and coke | 86 | 87 | 86 | 85 | 490 | 491 | 466 ^r | 469 ^r |
| Natural gas | 3 | 3 | 4 | 3 | 20 | 20 | 21 ^r | 21 ^r |
| Total | 89 | 90 | 90 | 89 | 511 | 511 | 487 ^r | 489 ^r |
| PAD 3: ³ | = - | | | | | | | |
| Petroleum and coke | 393 | 395 | 395 ^r | 400 r | 2,240 | 2,240 | 2,330 ^r | 2,350 r |
| Natural gas | 41 | 42 | 42 | 43 ^r | 253 | 257 | 266 ^r | 268 ^r |
| Total | 434 | 437 | 437 ^r | 443 ^r | 2,500 | 2,500 | 2,600 r | 2,620 r |
| PAD 4 and 5: ⁴ | = | | | | | | | |
| Petroleum and coke | 118 | 116 | 115 | 107 | 680 | 661 | 686 ^r | 692 ^r |
| Natural gas | 72 | 67 | 111 ^r | 103 ^r | 645 | 639 | 694 ^r | 691 ^r |
| California | 95 | 87 | 95 | 87 ^r | 439 | 419 | 524 ^r | 524 ^r |
| Total | 190 | 183 | 227 ^r | 210 ^r | 1,330 | 1,300 | 1,380 ^r | 1,380 ^r |
| Grand total | 734 | 731 | 777 ^r | 764 ^r | 4,460 | 4,440 | 4,590 ^r | 4,620 r |

 $[^]p Preliminary. \ ^r Revised. \\$

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

${\it TABLE~7} \\ {\it COMPARATIVE~SULFUR~AND~SULFURIC~ACID~STATISTICS}^1 \\$

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

| | | 2004 | | |
|--|-------------------|-------------------|-------------------|-------------------|
| | June | May | Total | total |
| Production | 8.93 ^p | 9.15 ^r | 9.00 ^r | 9.38 |
| Shipments | 8.89 ^p | 9.00 ^r | 8.96 ^r | 9.41 |
| Exports of sulfur | NA | 0.19 | 0.59 | 0.95 |
| Imports of sulfur: | | | | |
| Canada | NA | 1.65 ^e | 1.69 ^e | 2.01 |
| Mexico | NA | 0.47 | 0.50 | 0.55 |
| Total ² | NA | 2.60 e | 2.63 ^e | 2.85 ^e |
| Export of H ₂ SO ₄ | NA | 0.31 | 0.36 | 0.20 |
| Import of H ₂ SO ₄ : | | | | |
| Canada | NA | 1.86 | 2.12 | 1.92 |
| Europe | NA | | 0.17 | 0.21 |
| Total ² | NA | 2.26 | 2.80 | 2.39 |
| Consumption: ³ | | | | |
| Domestic sources | NA | 8.81 | 8.38 | 8.35 |
| Imports | NA | 2.60 e | 2.63 ^e | 2.85 ^e |
| Total | NA | 11.41 | 10.99 | 11.21 |
| Sulfur export values ⁴ | NA | \$116 | \$85 | \$67 |
| Sulfur import values: ⁴ | | | | |
| Canada | NA | \$13 | \$16 | \$16 |
| Mexico | NA | \$39 | \$39 | \$52 |
| Average | NA | \$23 | \$24 | \$27 |
| H ₂ SO ₄ export values ⁴ | NA | \$98 | \$80 | \$105 |
| H ₂ SO ₄ import values: ⁴ | | | | |
| Canada | NA | \$40 | \$38 | \$38 |
| Europe | NA | | \$31 | \$32 |
| Average | NA | \$37 | \$37 | \$36 |

^eEstimated. ^pPreliminary. ^rRevised. NA Not available. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because June trade data were not available, June consumption was not determined.

⁴Average value per ton for most recent data available.